

VI. COMPLIANCE AND ENFORCEMENT HISTORY

Background

Until recently, EPA has focused much of its attention on measuring compliance with specific environmental statutes. This approach allows the Agency to track compliance with the Clean Air Act, the Resource Conservation and Recovery Act, the Clean Water Act, and other environmental statutes. Within the last several years, the Agency has begun to supplement single-media compliance indicators with facility-specific, multimedia indicators of compliance. In doing so, EPA is in a better position to track compliance with all statutes at the facility level, and within specific industrial sectors.

A major step in building the capacity to compile multimedia data for industrial sectors was the creation of EPA's Integrated Data for Enforcement Analysis (IDEA) system. IDEA has the capacity to "read into" the Agency's single-media databases, extract compliance records, and match the records to individual facilities. The IDEA system can match Air, Water, Waste, Toxics/Pesticides/EPCRA, TRI, and Enforcement Docket records for a given facility, and generate a list of historical permit, inspection, and enforcement activity. IDEA also has the capability to analyze data by geographic area and corporate holder. As the capacity to generate multimedia compliance data improves, EPA will make available more in-depth compliance and enforcement information. Additionally, sector-specific measures of success for compliance assistance efforts are under development.

Compliance and Enforcement Profile Description

Using inspection, violation and enforcement data from the IDEA system, this section provides information regarding the historical compliance and enforcement activity of this sector. With this decision, the selection criteria are consistent across sectors with certain exceptions. For the sectors that do not normally report to the TRI program, data have been provided from EPA's Facility Indexing System (FINDS) which tracks facilities in all media databases. Please note, in this section, EPA does not attempt to define the actual number of facilities that fall within each sector. Instead, the section portrays the records of a subset of facilities within the sector that are well defined within EPA databases.

As a check on the relative size of the full sector universe, most notebooks contain an estimated number of facilities within the sector according to the Bureau of Census (see Section II). With sectors dominated by small businesses, such as metal finishers and printers, the reporting universe within the EPA databases may be small in comparison to Census data. However,

the group selected for inclusion in this data analysis section should be consistent with this sector's general make-up.

Following this introduction is a list defining each data column presented within this section. These values represent a retrospective summary of inspections and enforcement actions, and reflect solely EPA, State, and local compliance assurance activities that have been entered into EPA databases. To identify any changes in trends, the EPA ran two data queries, one for the past five calendar years (April 1, 1992 to March 31, 1997) and the other for the most recent twelve-month period (April 1, 1996 to March 31, 1997). The five-year analysis gives an average level of activity for that period for comparison to the more recent activity.

Because most inspections focus on single-media requirements, the data queries presented in this section are taken from single media databases. These databases do not provide data on whether inspections are state/local or EPA-led. However, the table breaking down the universe of violations does give the reader a crude measurement of the EPA's and States' efforts within each media program. The presented data illustrate the variations across EPA Regions for certain sectors.⁵ This variation may be attributable to state/local data entry variations, specific geographic concentrations, proximity to population centers, sensitive ecosystems, highly toxic chemicals used in production, or historical noncompliance. Hence, the exhibited data do not rank regional performance or necessarily reflect which regions may have the most compliance problems.

Compliance and Enforcement Data Definitions

General Definitions

Facility Indexing System (FINDS) -- this system assigns a common facility number to EPA single-media permit records. The FINDS identification number allows EPA to compile and review all permit, compliance, enforcement and pollutant release data for any given regulated facility.

Integrated Data for Enforcement Analysis (IDEA) -- is a data integration system that can retrieve information from the major EPA program office databases. IDEA uses the FINDS identification number to link separate data records from EPA's databases. This allows retrieval of records from across media or statutes for any given facility, thus creating a "master list" of

⁵ EPA Regions include the following states: I (CT, MA, ME, RI, NH, VT); II (NJ, NY, PR, VI); III (DC, DE, MD, PA, VA, WV); IV (AL, FL, GA, KY, MS, NC, SC, TN); V (IL, IN, MI, MN, OH, WI); VI (AR, LA, NM, OK, TX); VII (IA, KS, MO, NE); VIII (CO, MT, ND, SD, UT, WY); IX (AZ, CA, HI, NV, Pacific Trust Territories); X (AK, ID, OR, WA).

records for that facility. Some of the data systems accessible through IDEA are: AIRS (Air Facility Indexing and Retrieval System, Office of Air and Radiation), PCS (Permit Compliance System, Office of Water), RCRIS (Resource Conservation and Recovery Information System, Office of Solid Waste), NCDB (National Compliance Data Base, Office of Prevention, Pesticides, and Toxic Substances), CERCLIS (Comprehensive Environmental and Liability Information System, Superfund), and TRIS (Toxic Release Inventory System). IDEA also contains information from outside sources such as Dun and Bradstreet and the Occupational Safety and Health Administration (OSHA). Most data queries displayed in notebook sections IV and VII were conducted using IDEA.

Data Table Column Heading Definitions

Facilities in Search -- are based on the universe of TRI reporters within the listed SIC code range. For industries not covered under TRI reporting requirements (metal mining, nonmetallic mineral mining, electric power generation, ground transportation, water transportation, and dry cleaning), or industries in which only a very small fraction of facilities report to TRI (e.g., printing), the notebook uses the FINDS universe for executing data queries. The SIC code range selected for each search is defined by each notebook's selected SIC code coverage described in Section II.

Facilities Inspected -- indicates the level of EPA and state agency inspections for the facilities in this data search. These values show what percentage of the facility universe is inspected in a one-year or five-year period.

Number of Inspections -- measures the total number of inspections conducted in this sector. An inspection event is counted each time it is entered into a single media database.

Average Time Between Inspections -- provides an average length of time, expressed in months, between compliance inspections at a facility within the defined universe.

Facilities with One or More Enforcement Actions -- expresses the number of facilities that were the subject of at least one enforcement action within the defined time period. This category is broken down further into federal and state actions. Data are obtained for administrative, civil/judicial, and criminal enforcement actions. Administrative actions include Notices of Violation (NOVs). A facility with multiple enforcement actions is only counted once in this column, e.g., a facility with 3 enforcement actions counts as 1 facility.

Total Enforcement Actions -- describes the total number of enforcement actions identified for an industrial sector across all environmental statutes. A facility with multiple enforcement actions is counted multiple times, e.g., a facility with 3 enforcement actions counts as 3.

State Lead Actions -- shows what percentage of the total enforcement actions are taken by state and local environmental agencies. Varying levels of use by states of EPA data systems may limit the volume of actions recorded as state enforcement activity. Some states extensively report enforcement activities into EPA data systems, while other states may use their own data systems.

Federal Lead Actions -- shows what percentage of the total enforcement actions are taken by the United States Environmental Protection Agency. This value includes referrals from state agencies. Many of these actions result from coordinated or joint state/federal efforts.

Enforcement to Inspection Rate -- is a ratio of enforcement actions to inspections, and is presented for comparative purposes only. This ratio is a rough indicator of the relationship between inspections and enforcement. It relates the number of enforcement actions and the number of inspections that occurred within the one-year or five-year period. This ratio includes the inspections and enforcement actions reported under the Clean Water Act (CWA), the Clean Air Act (CAA) and the Resource Conservation and Recovery Act (RCRA). Inspections and actions from the TSCA/FIFRA/EPCRA database are not factored into this ratio because most of the actions taken under these programs are not the result of facility inspections. Also, this ratio does not account for enforcement actions arising from non-inspection compliance monitoring activities (e.g., self-reported water discharges) that can result in enforcement action within the CAA, CWA, and RCRA.

Facilities with One or More Violations Identified -- indicates the percentage of inspected facilities having a violation identified in one of the following data categories: In Violation or Significant Violation Status (CAA); Reportable Noncompliance, Current Year Noncompliance, Significant Noncompliance (CWA); Noncompliance and Significant Noncompliance (FIFRA, TSCA, and EPCRA); and Unresolved Violation and Unresolved High Priority Violation (RCRA). The values presented for this column reflect the extent of noncompliance within the measured time frame, but do not distinguish between the severity of the noncompliance. Violation status may be a precursor to an enforcement action, but does not necessarily indicate that an enforcement action will occur.

Media Breakdown of Enforcement Actions and Inspections -- four columns identify the proportion of total inspections and enforcement actions within EPA Air, Water, Waste, and TSCA/FIFRA/EPCRA databases. Each column is a percentage of either the “Total Inspections” or the “Total Actions” column.

VI.A. Air Transportation Industry Compliance History

Exhibit 13 provides an overview of the reported compliance and enforcement data for the air transportation industry over the past five years (April 1992 to April 1997). These data are also broken out by EPA Regions thereby permitting geographical comparisons. A few points evident from the data are listed below.

As shown, there were 444 facilities identified through IDEA with air transportation SIC codes. Of these, 52 percent (231) were inspected in the last 5 years.

- Over the 5 years, 973 inspections were conducted at those 231 facilities. On average, each facility was inspected between 4 and 5 times, or about once a year.
- The 973 inspections resulted in 48 facilities having enforcement actions taken against them. At those 48 facilities, there were a total of 97 enforcement actions, meaning each facility averaged approximately 2 enforcement actions over the past 5 years.
- The average enforcement to inspection rate is 0.10. This average rate means that for every 10 inspections conducted, there is 1 resulting enforcement action taken. Across the regions, this rate ranged from 0.03 to 0.30.

Exhibit 13. Five-Year Enforcement and Compliance Summary for the Air Transportation Industry									
A	B	C	D	E	F	G	H	I	J
Region	Facilities in Search	Facilities Inspected	Number of Inspections	Average Months Between Inspections	Facilities with 1 or More Enforcement Actions	Total Enforcement Actions	Percent State Lead Actions	Percent Federal Lead Actions	Enforcement to Inspection Rate
I	23	4	18	77	3	4	50%	50%	0.22
II	19	13	56	20	5	17	88%	12%	0.30
III	46	25	137	20	3	4	100%	0%	0.03
IV	132	95	402	20	16	37	100%	0%	0.09
V	23	15	89	16	4	8	50%	50%	0.09
VI	37	17	53	42	5	6	100%	0%	0.11
VII	31	13	58	32	1	2	0%	100%	0.03
VIII	21	9	14	90	2	4	100%	0%	0.29
IX	27	14	82	20	5	8	100%	0%	0.10
X	85	26	64	80	4	7	71%	29%	0.11
TOTAL	444	231	973	27	48	97	88%	12%	0.10

VI.B. Comparison of Enforcement Activity Between Selected Industries

Exhibits 14 and 15 allow the compliance history of the air transportation sector to be compared to the other industries covered by the industry sector notebooks. Comparisons between Exhibits 14 and 15 permit the identification of trends in compliance and enforcement records of the various industries by comparing data covering the last five years (April 1992 to April 1997) to that of the past year (April 1996 to April 1997). Some points evident from the data are listed below.

- Overall, the air transportation sector enforcement numbers are mostly consistent, on a percentage basis, with the other sectors.
- As shown in Exhibit 14, the air transportation enforcement-to-inspection rate is 0.10 over the past 5 years. Over the last year, as shown in Exhibit 15, the air transportation enforcement-to-inspection rate is 0.08.

Exhibits 16 and 17 provide a more in-depth comparison between the air transportation industry and other sectors by breaking out the compliance and enforcement data by environmental statute. As in the previous exhibits, the data cover the last five years (Exhibit 16) and the last year (Exhibit 17) to facilitate the identification of recent trends. A few points evident from the data are listed below.

- As shown, over the past 5 years, nearly half of all inspections conducted and resulting in enforcement actions at air transportation facilities have been under RCRA.
- Over the past year, while RCRA accounted for more than half of all inspections, only 25 percent of the enforcement actions were under RCRA.

Exhibit 14: Five-Year Enforcement and Compliance Summary for Selected Industries									
A	B	C	D	E	F	G	H	I	J
Industry Sector	Facilities in Search	Facilities Inspected	Number of Inspections	Average Months Between Inspections	Facilities with 1 or more Enforcement Actions	Total Enforcement Actions	Percent State Lead Actions	Percent Federal Lead Actions	Enforcement to Inspection Rate
Metal Mining	1,232	378	1,600	46	63	111	53%	47%	0.07
Coal Mining	3,256	741	3,748	52	88	132	89%	11%	0.04
Oil and Gas Extraction	4,676	1,902	6,071	46	149	309	79%	21%	0.05
Non-Metallic Mineral Mining	5,256	2,803	12,826	25	385	622	77%	23%	0.05
Textiles	355	267	1,465	15	53	83	90%	10%	0.06
Lumber and Wood	712	473	2,767	15	134	265	70%	30%	0.10
Furniture	499	386	2,379	13	65	91	81%	19%	0.04
Pulp and Paper	484	430	4,630	6	150	478	80%	20%	0.10
Printing	5,862	2,092	7,691	46	238	428	88%	12%	0.06
Inorganic Chemicals	441	286	3,087	9	89	235	74%	26%	0.08
Resins and Mannade Fibers	329	263	2,430	8	93	219	76%	24%	0.09
Pharmaceuticals	164	129	1,201	8	35	122	80%	20%	0.10
Organic Chemicals	425	355	4,294	6	153	468	65%	35%	0.11
Agricultural Chemicals	263	164	1,293	12	47	102	74%	26%	0.08
Petroleum Refining	156	148	3,081	3	124	763	68%	32%	0.25
Rubber and Plastic	1,818	981	4,383	25	178	276	82%	18%	0.06
Stone, Clay, Glass and Concrete	615	388	3,474	11	97	277	75%	25%	0.08
Iron and Steel	349	275	4,476	5	121	305	71%	29%	0.07
Metal Castings	669	424	2,535	16	113	191	71%	29%	0.08
Nonferrous Metals	203	161	1,640	7	68	174	78%	22%	0.11
Fabricated Metal Products	2,906	1,858	7,914	22	365	600	75%	25%	0.08
Electronics	1,250	863	4,500	17	150	251	80%	20%	0.06
Automobile Assembly	1,260	927	5,912	13	253	413	82%	18%	0.07
Shipbuilding and Repair	44	37	243	9	20	32	84%	16%	0.13
Ground Transportation	7,786	3,263	12,904	36	375	774	84%	16%	0.06
Water Transportation	514	192	816	38	36	70	61%	39%	0.09
Air Transportation	444	231	973	27	48	97	88%	12%	0.10
Fossil Fuel Electric Power	3,270	2,166	14,210	14	403	789	76%	24%	0.06
Dry Cleaning	6,063	2,360	3,813	95	55	66	95%	5%	0.02

Exhibit 15: One-Year Enforcement and Compliance Summary for Selected Industries									
A	B	C	D	E		F		G	H
Industry Sector	Facilities in Search	Facilities Inspected	Number of Inspections	Facilities with 1 or More Violations		Facilities with 1 or more Enforcement Actions		Total Enforcement Actions	Enforcement to Inspection Rate
				Number	Percent*	Number	Percent*		
Metal Mining	1,232	142	211	102	72%	9	6%	10	0.05
Coal Mining	3,256	362	765	90	25%	20	6%	22	0.03
Oil and Gas Extraction	4,676	874	1,173	127	15%	26	3%	34	0.03
Non-Metallic Mineral Mining	5,256	1,481	2,451	384	26%	73	5%	91	0.04
Textiles	355	172	295	96	56%	10	6%	12	0.04
Lumber and Wood	712	279	507	192	69%	44	16%	52	0.10
Furniture	499	254	459	136	54%	9	4%	11	0.02
Pulp and Paper	484	317	788	248	78%	43	14%	74	0.09
Printing	5,862	892	1,363	577	65%	28	3%	53	0.04
Inorganic Chemicals	441	200	548	155	78%	19	10%	31	0.06
Resins and Madmade Fibers	329	173	419	152	88%	26	15%	36	0.09
Pharmaceuticals	164	80	209	84	105%	8	10%	14	0.07
Organic Chemicals	425	259	837	243	94%	42	16%	56	0.07
Agricultural Chemicals	263	105	206	102	97%	5	5%	11	0.05
Petroleum Refining	156	132	565	129	98%	58	44%	132	0.23
Rubber and Plastic	1,818	466	791	389	83%	33	7%	41	0.05
Stone, Clay, Glass and Concrete	615	255	678	151	59%	19	7%	27	0.04
Iron and Steel	349	197	866	174	88%	22	11%	34	0.04
Metal Castings	669	234	433	240	103%	24	10%	26	0.06
Nonferrous Metals	203	108	310	98	91%	17	16%	28	0.09
Fabricated Metal	2,906	849	1,377	796	94%	63	7%	83	0.06
Electronics	1,250	420	780	402	96%	27	6%	43	0.06
Automobile Assembly	1,260	507	1,058	431	85%	35	7%	47	0.04
Shipbuilding and Repair	44	22	51	19	86%	3	14%	4	0.08
Ground Transportation	7,786	1,585	2,499	681	43%	85	5%	103	0.04
Water Transportation	514	84	141	53	63%	10	12%	11	0.08
Air Transportation	444	96	151	69	72%	8	8%	12	0.08
Fossil Fuel Electric Power	3,270	1,318	2,430	804	61%	100	8%	135	0.06
Drv Cleaning	6,063	1,234	1,436	314	25%	12	1%	16	0.01

Exhibit 16: Five-Year Inspection and Enforcement Summary by Statute for Selected Industries												
Industry Sector	Facilities Inspected	Total Inspections	Total Enforcement Actions	Clean Air Act		Clean Water Act		RCRA		FIFRA/TSCA/EPCRA/Other		
				% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	
Metal Mining	378	1,600	111	39%	19%	52%	52%	8%	12%	1%	17%	
Coal Mining	741	3,748	132	57%	64%	38%	28%	4%	8%	1%	1%	
Oil and Gas Extraction	1,902	6,071	309	75%	65%	16%	14%	8%	18%	0%	3%	
Non-Metallic Mineral Mining	2,803	12,826	622	83%	81%	14%	13%	3%	4%	0%	3%	
Textiles	267	1,465	83	58%	54%	22%	25%	18%	14%	2%	6%	
Lumber and Wood	473	2,767	265	49%	47%	6%	6%	44%	31%	1%	16%	
Furniture	386	2,379	91	62%	42%	3%	0%	34%	43%	1%	14%	
Pulp and Paper	430	4,630	478	51%	59%	32%	28%	15%	10%	2%	4%	
Printing	2,092	7,691	428	60%	64%	5%	3%	35%	29%	1%	4%	
Inorganic Chemicals	286	3,087	235	38%	44%	27%	21%	34%	30%	1%	5%	
Resins and Manmade Fibers	263	2,430	219	35%	43%	23%	28%	38%	23%	4%	6%	
Pharmaceuticals	129	1,201	122	35%	49%	15%	25%	45%	20%	5%	5%	
Organic Chemicals	355	4,294	468	37%	42%	16%	25%	44%	28%	4%	6%	
Agricultural Chemicals	164	1,293	102	43%	39%	24%	20%	28%	30%	5%	11%	
Petroleum Refining	148	3,081	763	42%	59%	20%	13%	36%	21%	2%	7%	
Rubber and Plastic	981	4,383	276	51%	44%	12%	11%	35%	34%	2%	11%	
Stone, Clay, Glass and Concrete	388	3,474	277	56%	57%	13%	9%	31%	30%	1%	4%	
Iron and Steel	275	4,476	305	45%	35%	26%	26%	28%	31%	1%	8%	
Metal Castings	424	2,535	191	55%	44%	11%	10%	32%	31%	2%	14%	
Nonferrous Metals	161	1,640	174	48%	43%	18%	17%	33%	31%	1%	10%	
Fabricated Metal	1,858	7,914	600	40%	33%	12%	11%	45%	43%	2%	13%	
Electronics	863	4,500	251	38%	32%	13%	11%	47%	50%	2%	7%	
Automobile Assembly	927	5,912	413	47%	39%	8%	9%	43%	43%	2%	9%	
Shipbuilding and Repair	37	243	32	39%	25%	14%	25%	42%	47%	5%	3%	
Ground Transportation	3,263	12,904	774	59%	41%	12%	11%	29%	45%	1%	3%	
Water Transportation	192	816	70	39%	29%	23%	34%	37%	33%	1%	4%	
Air Transportation	231	973	97	25%	32%	27%	20%	48%	48%	0%	0%	
Fossil Fuel Electric Power	2,166	14,210	789	57%	59%	32%	26%	11%	10%	1%	5%	
Dry Cleaning	2,360	3,813	66	56%	23%	3%	6%	41%	71%	0%	0%	

Exhibit 17: One-Year Inspection and Enforcement Summary by Statute for Selected Industries												
Industry Sector	Facilities Inspected	Total Inspections	Total Enforcement Actions	Clean Air Act		Clean Water Act		RCRA		FFRA/TSCA/EPCRA/Other		
				% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	
Metal Mining	142	211	10	52%	0%	40%	40%	8%	30%	0%	30%	
Coal Mining	362	765	22	56%	82%	40%	14%	4%	5%	0%	0%	
Oil and Gas Extraction	874	1,173	34	82%	68%	10%	9%	9%	24%	0%	0%	
Non-Metallic Mineral Mining	1,481	2,451	91	87%	89%	10%	9%	3%	2%	0%	0%	
Textiles	172	295	12	66%	75%	17%	17%	17%	8%	0%	0%	
Lumber and Wood	279	507	52	51%	30%	6%	5%	44%	25%	0%	40%	
Furniture	254	459	11	66%	45%	2%	0%	32%	45%	0%	9%	
Pulp and Paper	317	788	74	54%	73%	32%	19%	14%	7%	0%	1%	
Printing	892	1,363	53	63%	77%	4%	0%	33%	23%	0%	0%	
Inorganic Chemicals	200	548	31	35%	59%	26%	9%	39%	25%	0%	6%	
Resins and Manmade Fibers	173	419	36	38%	51%	24%	38%	38%	5%	0%	5%	
Pharmaceuticals	80	209	14	43%	71%	11%	14%	45%	14%	0%	0%	
Organic Chemicals	259	837	56	40%	54%	13%	13%	47%	34%	0%	0%	
Agricultural Chemicals	105	206	11	48%	55%	22%	0%	30%	36%	0%	9%	
Petroleum Refining	132	565	132	49%	67%	17%	8%	34%	15%	0%	10%	
Rubber and Plastic	466	791	41	55%	64%	10%	13%	35%	23%	0%	0%	
Stone, Clay, Glass and Concrete	255	678	27	62%	63%	10%	7%	28%	30%	0%	0%	
Iron and Steel	197	866	34	52%	47%	23%	29%	26%	24%	0%	0%	
Metal Castings	234	433	26	60%	58%	10%	8%	30%	35%	0%	0%	
Nonferrous Metals	108	310	28	44%	43%	15%	20%	41%	30%	0%	7%	
Fabricated Metal	849	1,377	83	46%	41%	11%	2%	43%	57%	0%	0%	
Electronics	420	780	43	44%	37%	14%	5%	43%	53%	0%	5%	
Automobile Assembly	507	1,058	47	53%	47%	7%	6%	41%	47%	0%	0%	
Shipbuilding and Repair	22	51	4	54%	0%	11%	50%	35%	50%	0%	0%	
Ground Transportation	1,585	2,499	103	64%	46%	11%	10%	26%	44%	0%	1%	
Water Transportation	84	141	11	38%	9%	24%	36%	38%	45%	0%	9%	
Air Transportation	96	151	12	28%	33%	15%	42%	57%	25%	0%	0%	
Fossil Fuel Electric Power	1,318	2,430	135	59%	73%	32%	21%	9%	5%	0%	0%	
Dry Cleaning	1,234	1,436	16	69%	56%	1%	6%	30%	38%	0%	0%	

VI.C. Review of Major Cases/Supplemental Environmental Projects

This section provides summary information about major cases that have affected this sector, and a list of Supplemental Environmental Projects (SEPs).

VI.C.1. Review of Major Cases

As shown in the previous tables, there have been only 97 enforcement actions taken against air transportation industries over the past 5 years. Stemming from those 97 actions are at least 34 cases, some of which are discussed in more detail below. The 34 cases can be categorized as follows:

- 1 Clean Air Act case (new source performance standards)
- 2 Clean Water Act cases (pretreatment and NPDES permit violations)
- 21 RCRA (USTs, unpermitted storage units, etc.)
- 5 CERCLA
- 4 TSCA (PCBs)
- 1 EPCRA (release reporting).

Of these 34 cases, 16 were against federal facilities and 2 were criminal cases. Supplemental environmental projects were negotiated in 3 of the cases. (These are discussed in more detail in the following section.) The following cases are examples of EPA's enforcement against air transportation industries.

- Pacific Southwest Airmotive, Inc. (PSA) owned and operated a jet engine overhaul facility in San Diego, California. EPA brought an enforcement action against PSA (and ultimately its new owner U.S. Air) under the Clean Water Act for violations of the pretreatment standard for metal finishing operations. During operations, PSA discharged an average of 73,000 gallons per day of regulated industrial wastewater through the sewers to San Diego's Point Loma wastewater treatment plant. The court entered a civil consent decree in which U.S. Air agreed to pay \$335,000 in civil penalties.
- Grumman St. Augustine Corporation strips, paints, and refurbishes aircraft at its St. Augustine, Florida, facility. EPA brought an enforcement action against Grumman in 1991 as part of the RCRA Land Disposal Restrictions Initiative. A consent decree in 1993 settled the enforcement action. The decree calls for a civil penalty of \$2.5 million, of which Grumman will initially pay \$1.5 million in cash. The penalty would be reduced by \$1 million if Grumman completed several innovative pollution prevention projects.

The pollution prevention provisions would substantially reduce or eliminate several highly toxic waste streams, including a paint stripper, methylene chloride, and ozone-depleting chemicals (e.g., CFCs). EPA estimated that up to 240,000 pounds of hazardous emissions per year will be eliminated and toxic sludge will be reduced if Grumman complied with RCRA. Furthermore, if compliance with RCRA is achieved, approximately 2.4 million gallons of potable water will be conserved.

- As a result of an imminent and substantial endangerment situation, EPA issued Reese Air Force Base in Lubbock, Texas, an administrative order under RCRA Section 7003. In March 1993, EPA learned that Reese had detected trichloroethylene above safe drinking water standards in some privately-owned drinking water wells near the base. After confirming the data, EPA issued the administrative order. The order requires the base to conduct the following activities:
 - (1) Collect samples from wells in a 36-square-mile area (within a 2-mile perimeter of the base) to determine the extent of the contamination
 - (2) Notify the owners of any contamination
 - (3) Supply an alternate source of drinking water to the residents with contaminated wells
 - (4) Monitor the ground water in and adjacent to the plume.

Reese has completed the initial sampling of about 950 wells, provided carbon filters for all the impacted water wells, and connected some of the users to the City of Lubbock's water system. The city is in the process of connecting its water lines to the residents that live within the city limits. The residents living outside the city limits may use the water from the wells after it has been carbon filtered.

- Region II conducted a major consolidated multimedia inspection of Kennedy International Airport in New York City, which is operated by the Port Authority of New York and New Jersey. A number of violations were documented, both at facilities operated by the Port Authority itself, as well as at some facilities operated by airline or service companies. In 1993 a complaint was issued to the Port Authority citing it for TSCA violations and proposing a penalty of \$289,000. On June 28, 1994, Region II issued three additional administrative complaints to Ogden Aviation Services, Inc., citing that company for violations of the federal underground storage tank regulations, and proposing penalties totaling \$109,125.

VI.C.2. Supplementary Environmental Projects (SEPs)

SEPs are compliance agreements that reduce a facility's non-compliance penalty in return for an environmental project that exceeds the value of the reduction. Often, these projects fund pollution prevention activities that can reduce the future pollutant loadings of a facility. Information on SEP cases can be accessed via the Internet at EPA's Enviro\$en\$e website: <http://es.inel.gov/sep>.

The following are examples of three SEPs negotiated with air transportation facilities.

- In response to violations of EPCRA Section 304 and CERCLA Section 103 at the Memphis/Shelby County Airport (Tennessee), the County Airport Authority agreed to implement a \$475,000 pollution prevention SEP. The SEP involves the purchase of equipment that will assist in the deicing of runways. The use of this equipment will reduce the amount of deicing fluid required, which results in a substantial reduction in the use of ethylene glycol. In addition, the Authority agreed to pay a \$9,000 penalty to resolve its past violations.
- EPA achieved a comprehensive settlement of a TSCA administrative complaint against the Port Authority of New York and New Jersey, which is a joint State agency that operates Kennedy and LaGuardia Airports in New York City. The Region had cited the Authority for multiple violations of PCB regulations at the airports. The settlement provides that the port authority will pay a civil penalty of \$19,500 and conduct two SEPs. One SEP consists of a 3-year fluorescent bulb recycling program for all Port Authority facilities in the New York metropolitan area. The total cost to implement the SEP is \$130,000. The second SEP is a storm water management training program that will be conducted at the airports over a 2-year period. This SEP will cost \$90,000.
- American Airlines, Inc. was charged with violations of the RCRA land disposal restrictions for discharging degreasing solvents, which are hazardous waste, into their onsite injection wells. A consent order was filed against American Airlines, in which it agreed to pay a cash penalty of \$20,000, take affirmative actions to prevent further injection of restricted wastes, and conduct a SEP in the amount of \$385,235. The SEP reduces chrome wastes by subjecting them to a chrome waste recovery system. The system reduces the waste by 98 percent or, in this case, 6,969 pounds per year. In addition, this system results in the elimination of 26 million gallons of wastewater annually into injection wells.

VII. COMPLIANCE ASSURANCE ACTIVITIES AND INITIATIVES

This section highlights the activities undertaken by this industry sector and public agencies to voluntarily improve the sector's environmental performance. These activities include those initiated independently by industrial trade associations. In this section, the notebook also contains a listing and description of national and regional trade associations.

VII.A. Sector-Related Environmental Programs and Activities

VII.A.1. EPA Voluntary Programs

Environmental Leadership Program

The Environmental Leadership Program (ELP) is a national initiative developed by EPA that focuses on improving environmental performance, encouraging voluntary compliance, and building working relationships with stakeholders. EPA initiated a one year pilot program in 1995 by selecting 12 projects at industrial facilities and federal installations that demonstrate the principles of the ELP program. These principles include: environmental management systems, multimedia compliance assurance, third-party verification of compliance, public measures of accountability, pollution prevention, community involvement, and mentor programs. In return for participating, pilot participants received public recognition and were given a period of time to correct any violations discovered during these experimental projects.

EPA is making plans to launch its full-scale Environmental Leadership Program in 1998. The full-scale program will be facility-based with a 6-year participation cycle. Facilities that meet certain requirements will be eligible to participate, such as having a community outreach/employee involvement programs and an environmental management system (EMS) in place for 2 years. (Contact: <http://es.inel.gov/elp> or Debby Thomas, ELP Deputy Director, at (202) 564-5041)

Project XL

Project XL was initiated in March 1995 as a part of President Clinton's *Reinventing Environmental Regulation* initiative. The projects seek to achieve cost effective environmental benefits by providing participants regulatory flexibility on the condition that they produce greater environmental benefits. EPA and program participants will negotiate and sign a Final Project Agreement, detailing specific environmental objectives that the regulated entity shall satisfy. EPA will provide regulatory flexibility as an incentive for the participants' superior environmental performance. Participants are encouraged to seek stakeholder support from local

governments, businesses, and environmental groups. EPA hopes to implement fifty pilot projects in four categories, including industrial facilities, communities, and government facilities regulated by EPA. Applications will be accepted on a rolling basis. For additional information regarding XL projects, including application procedures and criteria, see the April 23, 1997 Federal Register Notice. (Contact: Fax-on-Demand Hotline (202) 260-8590, Web: <http://www.epa.gov/ProjectXL>, or Christopher Knopes at EPA's Office of Policy, Planning and Evaluation at (202) 260-9298.)

Climate Wise Program

EPA's ENERGY STAR Buildings Program is a voluntary, profit-based program designed to improve the energy-efficiency in commercial and industrial buildings. Expanding the successful Green Lights Program, ENERGY STAR Buildings was launched in 1995. This program relies on a 5-stage strategy designed to maximize energy savings thereby lowering energy bills, improving occupant comfort, and preventing pollution—all at the same time. If implemented in every commercial and industrial building in the United States, ENERGY STAR Buildings could cut the nation's energy bill by up to \$25 billion and prevent up to 35% of carbon dioxide emissions. (This is equivalent to taking 60 million cars off the road). ENERGY STAR Buildings participants include corporations; small and medium sized businesses; local, federal and state governments; non-profit groups; schools; universities; and health care facilities. EPA provides technical and non-technical support including software, workshops, manuals, communication tools, and an information hotline. EPA's Office of Air and Radiation manages the operation of the ENERGY STAR Buildings Program. (Contact: Green Light/Energy Star Hotline at 1-888-STAR-YES or Maria Tikoff Vargas, EPA Program Director at (202) 233-9178 or visit the ENERGY STAR Buildings Program website at <http://www.epa.gov/appdstar/buildings/>)

Green Lights Program

EPA's Green Lights program was initiated in 1991 and has the goal of preventing pollution by encouraging U.S. institutions to use energy-efficient lighting technologies. The program saves money for businesses and organizations and creates a cleaner environment by reducing pollutants released into the atmosphere. The program has over 2,345 participants which include major corporations, small and medium sized businesses, federal, state and local governments, non-profit groups, schools, universities, and health care facilities. Each participant is required to survey their facilities and upgrade lighting wherever it is profitable. As of March 1997, participants had lowered their electric bills by \$289 million annually. EPA provides technical assistance to the participants through a decision support software package, workshops and manuals, and an information hotline. EPA's Office

of Air and Radiation is responsible for operating the Green Lights Program. (Contact: Green Light/Energy Star Hotline at 1-888-STAR-YES or Maria Tikoff Vargar, EPA Program Director, at (202) 233-9178.)

WasteWi\$e Program

The WasteWi\$e Program was started in 1994 by EPA's Office of Solid Waste and Emergency Response. The program is aimed at reducing municipal solid wastes by promoting waste prevention, recycling collection and the manufacturing and purchase of recycled products. As of 1997, the program had about 500 companies as members, one third of whom are Fortune 1000 corporations. Members agree to identify and implement actions to reduce their solid wastes setting waste reduction goals and providing EPA with yearly progress reports. To member companies, EPA, in turn, provides technical assistance, publications, networking opportunities, and national and regional recognition. (Contact: WasteWi\$e Hotline at 1-800-372-9473 or Joanne Oxley, EPA Program Manager, (703) 308-0199.)

NICE³

The U.S. Department of Energy is administering a grant program called The National Industrial Competitiveness through Energy, Environment, and Economics (NICE³). By providing grants of up to 45 percent of the total project cost, the program encourages industry to reduce industrial waste at its source and become more energy-efficient and cost-competitive through waste minimization efforts. Grants are used by industry to design, test, and demonstrate new processes and/or equipment with the potential to reduce pollution and increase energy efficiency. The program is open to all industries; however, priority is given to proposals from participants in the forest products, chemicals, petroleum refining, steel, aluminum, metal casting and glass manufacturing sectors. (Contact: Chris Sifri, DOE at (303) 275-4723 or Eric Hass, DOE at (303) 275-4728 or <http://www.oit.doe.gov/access/nice3>.)

Design for the Environment (DfE)

DfE is working with several industries to identify cost-effective pollution prevention strategies that reduce risks to workers and the environment. DfE helps businesses compare and evaluate the performance, cost, pollution prevention benefits, and human health and environmental risks associated with existing and alternative technologies. The goal of these projects is to encourage businesses to consider and use cleaner products, processes, and technologies. For more information about the DfE Program, call (202) 260-1678. To obtain copies of DfE materials or for general information about DfE, contact EPA's Pollution Prevention Information Clearinghouse at (202) 260-1023 or visit the DfE Website at <http://es.inel.gov/dfe>.

VII.A.2. Trade Association/Industry Sponsored Activity

Industry Working Group on Deicing

A deicing working group was formed by the American Association of Airport Executives and the Airports Council International - North America to (1) study the use of deicing chemicals on aircraft; (2) study the feasibility of locating deicing facilities away from airport gates; and (3) provide information to both industry members and the federal government on ways in which deicing operations can be improved upon. As part of their investigation, the working group sent out surveys to the major airports to determine which deicing procedures and chemicals are being used by the industry. Some of the survey questions relate to environmental effects of deicing and recovery, reuse, and recycling of waste deicer. The results of the survey indicated that a number of air carriers are using alternative chemicals, and have constructed remote deicing facilities with deicer recovery systems. (Contact: Carter Morris, American Association of Airport Executives, (703) 824-0500.)

ISO 14000

ISO 14000 is a series of internationally-accepted standards for environmental management. The series includes standards for environmental management systems (EMS), guidelines on conducting EMS audits, standards for auditor qualifications, and standards and guidance for conducting product lifecycle analysis. Standards for auditing and EMS were adopted in September 1996, while other elements of the ISO 14000 series are currently in draft form. While regulations and levels of environmental control vary from country to country, ISO 14000 attempts to provide a common standard for environmental management. The governing body for ISO 14000 is the International Organization for Standardization (ISO), a worldwide federation of 110+ country members based in Geneva, Switzerland. The American National Standards Institute (ANSI) is the United States representative to ISO.

VII.B. Summary of Trade Associations

American Association of Airport Executives

4212 King Street
Alexandria, VA 22302
Phone: (703) 824-0500
Fax: (703) 820-1395

The American Association of Airport Executives (AAAE) is comprised of airport management personnel and representatives of companies serving the civil airport industry. The AAAE sponsors educational seminars, conducts

examinations, and maintains a speakers' bureau. AAAE has an Environmental Service/Environmental Affairs Committee that provides assistance on complying with environmental regulations (e.g., regulation interpretations, training seminars, and manuals). Environmental compliance assistance is focused on the storm water rules. Publications are the bimonthly *Airport Executive Magazine* and the *Airport Report Newsletter*. Separate yearly conferences are held on topics such as national airports, legislative issues (semiannual), international facilities, and general annual issues.

Airports Association Council International

1220 19th Street NW, Suite 200
Washington, D.C. 20036
Phone: (202) 293-8500
Fax: (202) 331-1362

The Airports Association Council International (AACI) is comprised of operators of public airport facilities. The group also includes government bodies that own and operate major airports. The association provides compliance assistance to members through seminars, meetings, conferences, regulation interpretations, and manuals. One day conferences are frequently held on environmental management and auditing techniques. Committees include planning and environmental, safety and security, and U.S. government affairs. Publications are the weekly *Airport Highlights*, the annual *Worldwide Airport Traffic Report*, and the *Airport Environmental Management Handbook*. The AACI holds an annual meeting in September or October.

National Air Transportation Association

4226 King Street
Alexandria, VA 22302
Phone: (703) 845-9000
Fax: (703) 845-8176

The National Air Transportation Association (NATA) represents the interests of aviation services companies such as fixed-based operators and on-demand air taxis. NATA provides compliance assistance to members in the form of guidelines, explanations of regulations, and seminars. Most of NATA's work relates to Federal Aviation Administration regulations; however, environmental services are also provided. Environmental aspects of deicing and aircraft cleaning are not a major focus, because the membership does not include the carrier companies, however, some fixed-based operators carry out deicing operations. Publications include an annual membership directory, an annual report, and the monthly *ATAnews*.

Airports Council International - North America

1775 K Street, NW Suite 500
Washington, D.C. 20006
Phone: (202) 293-8500
Fax: (202) 331-1362

Airports Council International - North America (ACI-NA) is the “voice of airports” representing local, regional, state, and national governing bodies that own and operate commercial airports in the U.S. ACI-NA member airports enplane more the 90 percent of the domestic and virtually all of the international airliner passenger and cargo traffic in North America.

Aerospace Industries Association

1250 Eye Street, NW
Washington, D.C. 20005
Phone: (202) 371-8400

Member companies of Aerospace Industries Association (AIA) represent the primary manufacturers of military and large commercial aircraft, engines, accessories, rockets, spacecraft, and related items.

General Aviation Manufacturers Association

1400 K Street, NW Suite 801
Washington, D.C. 20005
Phone: (202) 393-1500

The General Aviation Manufacturers Association (GAMA) is a national trade association, headquartered in Washington, D.C., representing 53 manufacturers of fixed-wing aircraft, engines, avionics, and components. In addition to building nearly all U.S. general aviation aircraft, GAMA member companies also operate aircraft fleets, airport fixed-based operations, pilot schools, and training facilities.

Air Transport Association of America

1709 New York Ave., NW
Washington, D.C. 20006
Phone: (202) 626-4000
Fax: (202) 626-4181

The Air Transport Association of America (ATA) represents 22 major scheduled airlines in the U.S. engaged in transporting persons, goods, or mail by aircraft. ATA serves its membership by providing aviation safety, advocating industry positions, conducting designated industry-wide programs and monitoring public understanding. ATA publishes annually *Air Transport* as well as fact sheets, press releases, studies, speeches, and references pertaining to air transport. The ATA holds quarterly meetings.

Air Line Pilots Association

535 Herndon Parkway
P.O. Box 1169
Herndon, VA 20170
Phone: (703) 689-2270
Fax: (703) 689-4370

The Air Line Pilots Association (ALPA) is a union representing 46,000 airline pilots at 45 U.S. airlines. ALPA provides lobbying of airline pilot views to Congress and government agencies, and devotes approximately 20 percent of its dues income to support aviation safety.

Regional Airline Association

1200 19th Street, N.W. Suite 300
Washington, D.C. 20036
Phone: (202) 857-1170
Fax: (202) 429-5113

The Regional Airline Association (RAA) represents regional air carriers and suppliers of products and services that support the industry before the Congress, Federal Aviation Administration, Department of Transportation and other federal and state agencies. RAA member airlines transport between 90-95 percent of all regional airline passengers. RAA developed an *Environmental Compliance Handbook* addressing compliance issues.

Aircraft Owners & Pilots Association

421 Aviation Way
Frederick, MD 21701
Phone: (301) 695-2000

With over 270,000 members, the Aircraft Owners & Pilots Association (AOPA) represents the interests of general aviation pilots. It provides insurance plans, flight planning, and other services, and sponsors large fly-in meetings.

Helicopter Association International

1619 Duke Street
Alexandria, VA 22314
Phone: (703) 683-4646
Fax: (703) 683-4745

The members of Helicopter Association International (HAI) represent rotocraft operators and manufacturers.

National Association of State Aviation Officials

8401 Colesville Road, Suite 505
Silver Spring, MD 20910
Phone: (301) 588-0587
Fax: (301) 585-1803

The National Association of State Aviation Officials (NASAO) represents departments of transportation and state aviation departments and commissions from 49 states, Puerto Rico, and Guam.

National Business Aircraft Association

1200 18th Street, NW, Room 200
Washington, D.C. 20036
Phone: (202) 783-9000

The National Business Aircraft Association (NBAA) represents 361 companies that own and operate aircraft flown for corporate purposes. NBAA is affiliated with the International Business Aircraft Council.

Flight Safety Foundation

2200 Wilson Boulevard
Arlington, VA 22201
Phone: (703) 739-6700
Fax: (703) 739-6708

The Flight Safety Foundation (FSF) promotes air transport safety. Its members include airport and airline executives and consultants.

Experimental Aircraft Association

EAA Aviation Center
Oshkosh, WI 54903
Phone: (414) 426-4800

The Experimental Aircraft Association (EAA), with over 700 local chapters, promotes the interests of home-built and sport aircraft owners.

Aviation Distributors & Manufacturers Association

1900 Arch Street
Philadelphia, PA 19103
Phone: (215) 564-3484
Fax: (215) 564-3484

The Aviation Distributors & Manufacturers Association (ADMA) represents the interests of a wide variety of aviation firms including FBOs and component parts manufacturers.

International Air Transport Association

2000 Peel Street
Montreal, PQ, Canada H3A2R4
Phone: (514) 844-6311
Fax: (514) 844-5286

The International Air Transport Association (IATA) is an association of 105 international air carriers whose main functions include coordination of fares and operations.

Cargo Airline Association

1220 19th Street, N.W. Suite 400
Washington, D.C. 20036
Phone: (202) 293-1030
Fax: (202) 293-4377

The Cargo Airline Association (CAA) is a nationwide trade organization with members made up of all segments of the air cargo community. The Association is responsible for promoting the use of air freight services; monitoring regulatory activity; representing the industry before Congress, various agencies, and courts; providing educational programs; and keeping members up-to-date on all issues affecting air cargo.

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